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December 19, 2003



PATENT APPLICATION  
Attorney's Docket No. 2386.1014-001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Mark C. Nowell, Gary Nicholl and Jean-Yves Ouellet  
Application No.: 09/484,961 Group: 2666  
Filed: January 18, 2000 Examiner: Duong, Frank  
Confirmation No.: 1330  
For: METHOD AND APPARATUS FOR TRANSFERRING  
SYNCHRONOUS OPTICAL NETWORK/SYNCHRONOUS  
DIGITAL HIERARCHY (SONET/SDH) FRAMES ON PARALLEL  
TRANSMISSION LINKS

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| CERTIFICATE OF MAILING   |                     |
| I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P O Box 1450, Alexandria, VA 22313-1450 |                     |
| on <u>Jan 12, 2004</u>   | <u>Elaine Leahy</u> |
| Date   | Signature           |
| <u>Elaine Leahy</u>  |                     |
| Typed or printed name of person signing certificate  |                     |

DECLARATION OF MARK C. NOWELL UNDER 37 C.F.R. § 1.131

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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JAN 20 2004

Technology Center 2600

Sir:

I, Mark C. Nowell of 33 Crantham Cres., Stittsville, Ontario, K2S, Canada hereby declare and state that:

- I am a joint inventor of U.S. Patent Application No. 09/484,961, entitled "Method and Apparatus for Transferring Synchronous Optical Network/Synchronous Digital Hierarchy (SONET/SDH) Frames on Parallel Transmission Links," filed on January 18, 2000, which

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claims: the benefit of U.S. Provisional Application No. 60/168,049, filed on November 30, 1999.

2. I have read and understood the above-referenced patent application.
3. I have also read and understand the Office Action mailed from the U.S. Patent and Trade mark Office on September 22, 2003. I understand its contents and the issues related to patentability presented in the Office Action for the invention claimed in the patent application. Specifically, I understand that Hanks *et al.* (*Proposal for a Very Short Reach (VSR) OC-192/STM-64 Interface based on Parallel Optics*, OIF-99.120, pages 1-10, first released for review on September 24, 1999) (hereinafter "Hanks") was relied upon as a primary reference to reject all claims, Claims 1-44, under 35 U.S.C. § 102(a).
4. Prior to the release for review date of Hanks, an internal Cisco Systems product specification ("product specification"), entitled "OC-192 Very Short Reach Interconnect Module," Document No. 48278, Rev. 0.3, initially released on April 12, 1999 was originated by co-inventors of the subject patent application Mark Nowell, Gary Nicholl, and Jean-Yves Ouellet and non-co-inventor Roger Li. See Exhibit A, which is a copy of this paper as published on April 12, 1999. The copy was printed November 7, 2003 for the purpose of filing in this declaration.
3. The product specification, particularly Fig. 6 on page 12 and a corresponding description in section 3.0 on pages 8 through 11 describing same, shows that the inventors in the subject patent application were in possession of the invention at the time the product specification was released, i.e., April 12, 1999. In Fig. 6, a converter Application Specific Integrated Circuit (ASIC) includes (i) a demultiplexer to map SONET/SDH frames onto a plurality of data channels, (ii) an encoder to encode and translate data on each data channel on each transmission, (iii) a decoder to decode and translate data on each channel for reception, and (iv) a multiplexer to map the plurality of data channels onto SONET/SDH frames.

Fig. 6 of the product specification is the same as Fig. 2 in the patent application as originally filed. Claims 1, 6, 17, 29, and 38 read on Fig. 6 in the product specification. The product

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specification further presents details of the ASIC, such as electrical characteristics of the converter ASIC on page 7, a detailed schematic of a framer and byte demultiplexer in Fig. 7 on page 13, a transmission format in Figure 8 on page 14, an error correction channel format in Figure 9 on page 15, state diagrams in Figures 10-12 on pages 16-17, and various other pinout and mechanical designs on pages 18-21.

4. I am aware of an Optical Internetworking Forum (OIF) meeting that took place in Orlando, FL on January 26-26, 1999. Minutes of that meeting, OIF99-034-2 (see Exhibit B), were submitted to the attendees of the meeting on April 20, 1999 and were released on May 4, 1999. As listed in Part VII (Living List) of the minutes, in the meeting, Stan Hanks (Enron) seconded a motion from Del Hanson (HP) to include a parallel optics (ribbon fiber) interface on the living list for implementation of a low cost, intra-office, 10Gb/s fiber interface. The minutes do not include technical details, just an agreement that the group would work on a low cost 10 Gb/s interface based on parallel optics.
5. I am aware of a first slideshow presentation, OIF99.089.1 (see Exhibit C), submitted to the OIF on July 12, 1999 (after the April 12, 1999 release date of the product specification) and presented at an OIF Technical Committee meeting on July 20-21, 1999. The first slideshow presentation includes a contribution submitted by Drew Perkins (Ciena) on proposals for low cost OC192 optical interface projects. This contribution was co-authored by one of my co-inventors, Gary Nicholl (Cisco). The contribution reviewed a number of architectural options for providing low cost OC192 interfaces, but no technical details were presented. Stan Hanks was not on this contribution. However, one of the recommendations of the contribution was for the OIF to develop a standard for mapping OC192 data across 12x1.25Gb/s data links (see chart 14).
6. I am also aware of a second slideshow presentation, OIF99-107-01 (see Exhibit D), entitled "Low Cost OC-192 Interface Based on Parallel Optics," Version 4.2, submitted on July 20, 1999 (after the April 12, 1999 release date of the product specification) to the OIF. This second slideshow was presented as in conjunction with handouts of the cited Hanks reference OIF99.120 at the OIF meeting on October 19-20 in Los Angeles, CA. This second slideshow presentation is a contribution by co-inventors Gary Nicholl and me of the subject patent

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application proposing a specific mapping of OC192 across 12x1.25Gb/s optical links. This contribution was co-authored by a total of 14 others, including Stan Hanks (Enron). Gary Nicholl was the one who asked Stan Hanks if he would like to be a co-author of this contribution.

This is the first contribution to the OIF which provides specific technical details on the mapping of OC192 data across 12x1.25Gb/s optical channels which is the subject of the subject patent application.

7. The product specification of April 12, 1999 pre-dates this OIF 99-107.01 submission of July 20, 1999 for which Stan Hanks was only a co-author and did not provide any technical input.
8. In conclusion, prior to the release of Hanks (OIF99.120) on October 19-20, 1999, my co-inventors and I both conceived and reduced to practice a converter application specific integrated circuit (ASIC) that includes (i) a demultiplexer to map SONET/SDH frames onto a plurality of data channels, (ii) an encoder to encode and translate data on each data channel on each transmission, (iii) a decoder to decode and translate data on each channel for reception, and (iv) a multiplexer to map the plurality of data channels onto SONET/SDH frames.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



Mark C. Nowell

1/9/2004  
Date